

MAKAROV-ZEMLYANSKIY, Aleksey Niko. layevich; PETROVA, I.P.,
retsenzent; POKHLEBALOVA, I.P., spets. red.; SMIRNOVA,
M.K., red.

[Technology and equipment of the perfumery industry] Tekh-
nologiya i oborudovanie parfiumernogo proizvodstva. Mo-
skva, Pishchevaia promyshlennost', 1964. 190 p.

(MIRA 17:10)

MAKAROV-ZEMLYANSKIY, A.N., inzh.

Holding quality of perfumes. Masl.-zhir.prom. 26 no.8:19-24
Ag '60. (MIRA 13:8)
(Perfumes)

MAKAROV-KOZHUKHOV, L.N., kand.sel'skokhoz.nauk

Controlling mole cricket. Zashch. rast. ot vred. i bol. 8 no.11:
42 N '63. (MIRA 17:3)

1. Opytnaya stantsiya, Anapa.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500036-6

MAKAROV-KOZHUKHOV, L. N., Cand Agr Sci -- (diss) "Problems of the theory of pruning grape bushes." Odessa, 1960. 13 pp; (Ministry of Agriculture Ukrainian SSR, Odessa Agricultural Inst); 250 copies; price not given; (KL, 22-60, 141)

1. MAKAROV-KOZHUKHOV, L. N.
2. USSR (600)
4. Viticulture
7. Some problems regarding grape cultivation practices. Vin. SSSR 13, No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

MAKAROV-KOZHUKOV, L. N.

L. N. Makarov-Kozhukov, Obrezka i formirivaniye kустov vinograda (Trimming and Forming of Grape Vines), Sel'khozgiz, 9 sheets, 1953

✓ On the basis of the latest scientific and practical progress, the problems of trimming and forming grape vines in the southern areas of the USSR are discussed in this book. The author acquaints the readers with various systems of forming the grape vines and nurturing them.

The book is intended for agronomists.

SO: U-6472, 18 Nov 1954

1. MAKAROV-KOZHUKHOV, L. N.
2. USSR (600)
4. Viticulture
7. Let's consider viticulture problems. Nutrition area of grape vines. Vin. SSSR 12 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

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MAKAROV-KOZHUKHOV, L. N.

21851 MAKAROV-KOZHUKHOV, L. N. Yeshche o ponyatii sorta. Seleksiya
i semenovodstvo, 1949, No. 7, s. 44-45.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

NUMEROV-KOZHUKOV, I. M.

"Rational Control of Mildew on Grapes," Vineiculture i Vinogradarstvo USSR, vol. 2,
no. 3, 1977, pp. 42-43. 15.1 V77

So: Gira 51-90-53, 15 Dec. 1977

LENGVENS, F.F., tekhnik; MAKAROV, Yu.Ya., inzh.

Converting the control circuits of sluices and protection of substations
to operational alternating current. Elek. sta. 29 no.10:52-55 0 '58.
(Electric substations) (MIRA 11:11)

MAKAROV, Yu., V.

Methods of bolting quietly operating machinery and metal
structures to foundations. Prom. stroi. 40 no. 7:52-53 J1 '63.
(MIRA 16:10)

1. Gosudarstvennyy trest po montazhu metallurgicheskogo
oborudovaniya v vostochnykh rayonakh.

MAKAROV, Yu.V., inzh.

Combined method of assembling bridge cranes. Prom. stroi. 40
[i.e. 41.] no.3:40-41 Mr '63. (MIRA 16:3)

1. Gosudarstvennyy trest po montazhu metallurgicheskogo
oborudovaniya v vostochnykh rayonakh.
(Cranes, derricks, etc.)

MAKAROV, Yu.V.

Quality of assembling sintering machines and ways to improve it.
Metallurg 7 no.2:12-13 F '62. (MIRA 15:3)

1. Trest "Vostokmetallurgmontazh."
(Sintering--Equipment and supplies)

MAKAROV, Yu.V., inzh.

Combined assembly of equipment and technical metal elements in
building a sintering plant. Mont.i spets.rab.v stroi. 23 no.6:
25-26 Je '61. (MIRA 14:7)

1. Trest Vostokmetallurgmontazh.
(Metallurgical plants)

3(5)

SOV/11-59-9-15/18

AUTHOR: Makarov, Yu.V.

TITLE: On the Article by B.M. Shtentsel' "The Age of Conglomerates in the Metamorphic Stratum of the Median Mountain Range of Kamchatka"

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 9, pp 106-107 (USSR)

ABSTRACT: The above article was published in the "Reports of the Academy of Sciences of the USSR", 1957, vol.114, Nr 5. The author finds that the conglomerates in question form a foundation of a series of sedimentary and effusive rocks and do not belong to the metamorphic series of rocks.

Card 1/1

KNUNYANTS, I.L.; CHEBURKOV, Yu.A.; MAKAROV, Yu.V.

Thermal decomposition of alcoholates of tertiary alcohols
containing trifluoromethyl groups. Izv. AN SSSR. Otd.khim.
nauk no.8:1471-1475 Ag '61. (MIRA 14:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Alcohols) (Alcoholates)

MAKAROV, Yu.V., prof.; SELIVERSTOVA, A.I., ordinator

Sudden death in children. Kaz. med. zhur. no.1:38-43 Ja-F
'62. (MIRA 15:3)

1. Kafedra detskikh bolezney (zav. - prof. Yu.V. Makarov)
Kazanskogo meditsinskogo instituta.
(DEATH)

L 45437-66

ACC NR: AT6022648

tube and made possible a comparison of the separate phases of the process with the changes in the discharge current. The authors reached the following conclusions: At a certain distance from the ring-shaped electrode, the glow front breaks up with the formation of various types of instabilities and therefore, is not a shock wave. The glow front is a gas-discharging plasma, which plays the part of a "piston" when the shock wave is formed. The area of the shock-heated gas between the shock front and the gas-discharging plasma decreases sharply as the discharge current is reduced and the volume is increased and becomes discernible. Measurements in the air, nitrogen, hydrogen, and carbon dioxide gases have shown that the "piston" characteristic of the gas-discharging plasma is common to all gases investigated. Therefore, the glow front observed optically in electromagnetic shock tubes is the boundary line of gas-discharging plasma. The breakdown of the boundary of this plasma can produce a change in the condition of the shock heated-gas at the expense of the penetration of its "tongues" into the "bottleneck" region. Orig. art. has: 3 figures. [GC]

SUB CODE: 20, 09/ SUBM DATE: 31Feb66/ ORIG REF: 004/ OTH REF: 001/

Card 2/2

L 45437-66 EWT(L)/EWP(m) IJP(c) FDN/GD/AT

ACC NR: AT6022648

SOURCE CODE: UR/0000/66/000/000/0081/0087

84
83
E+1

AUTHOR: Makarov, Yu. V. ; Maksimov, A. M.

ORG: none

TITLE: Investigation of glow front structure in an electromagnetic shock tube

SOURCE: AN SSSR. Energeticheskiy institut. Issledovaniya po fizicheskoy gazodinamike (Studies of physical gas dynamics). Moscow, Izd-vo Nauka, 1966, 81-87

TOPIC TAGS: glow front, electromagnetic shock tube, gas discharge plasma, ring shaped electrode, shock tube, shock wave, *GLOW DISCHARGE, SHOCK TUBE, DISCHARGE CHAMBER*

ABSTRACT: On the basis of previous works, the authors describe in detail the results of an investigation of the structure of the glow front in the air at a great distance from the discharge chamber. The investigation was made with the aid of an electromagnetic shock tube with a conical discharge chamber. The extension of the glow front along the tube showed the changes in the shape of the front along the

Card 1/2

[illegible]

and the duration of this layer is 3 to 5 times longer than the duration of the steady-state reaction. Test time of a shock tube 50 mm in diameter versus the shock wave velocity at an initial pressure of 1 mm Hg is given in a graph in which the results of theoretical calculations and various experimental data are plotted. One of the advantages of thin-film thermal gauges cited here is the smallness of the time constant $\tau = 0.1$ msec. Experiments were conducted in a shock tube 50 mm in diameter and 4 m long in the Mach range from 3 to 10, with hydrogen as the burning gas. The Doppler method and a high-speed movie camera (30,000 frames/sec) were used for data recording. Only one has 6 figures. [AB]

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

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ADD PRES: 4037

SUBJECT: Shock tube test time IR/65 UD/M/79
 REFERENCE: UD/0294/65/003/003/0451/3462 45
534.222.2:533.6.071.8
 AUTHOR: Polysky, Yu. V. (Moscow); Naboko, I. M. (Moscow); Malozemov, Yu. V. (Moscow)
 TITLE: Experimental determination of a test time in a shock tube by the thermal probe method
 SOURCE: Teplotekhnika i tekhnicheskaya temperatura, v. 3, no. 3, 1965, 457-462
 TOPIC TAGS: shock tube test time, shock wave, transition region, boundary layer, shock tube flow, flow behind shock wave, thin film resistance gauge, Toeppler method, expansion flow
 SUMMARY: The results of an experimental determination of the duration and the extent of the region of a steady-state gas flow behind the shock-wave front by means of a thin-film resistance gauge located in the shock tube wall are discussed. It consists of a thin-film gauge 0.1 μ thick deposited on the spherical end of a glass tube, silvered and being coated with a paste containing chloroplatinic acid. A comparison analysis of other sensors used in direct contact with the gas, such as pressure gauges, film resistance thermometers, and electric probes is given. Experiments showed that at initial pressures from 0.1 to 10 mm Hg, the hot boundary layer on the wall persists for a long time after the passage of the contact discontinuity. Cont. 1/2

ACC NR: AP6007076

reflector and high-speed streak photographs were made with the integrated light through a 15-cm-long slit parallel to the axis of the tube. The conductivity of the plasma behind the reflected shock wave was measured with the aid of a 2-mm-thick spiral winding with inner and outer diameters of 1.0 and 1.5 cm, respectively. This winding was mounted within the Plexiglas reflecting wall and formed part of a resonant circuit with a resonance frequency of 865 kcps and a Q of 110. The plasma conductivity was obtained from the change in the current in the resonant circuit under constant excitation with the aid of an empirical calibration curve recorded under static conditions. The manifold data are discussed at length. The data recorded for air are compared with thermodynamic calculations and reasonable agreement is shown. Possible sources of error of the conductivity measurements are considered and it is concluded that the measured values of the conductivity are reasonable but that final conclusions must await improvement of the technique and performance of appropriate calculations. "The authors thank A.S.Predvoditelev for valuable discussions, V.S.Chebyshev and V.A.Poltoratskiy for assistance with the experiments, and N.N.Shipkov for cooperation in the conduct of this work." Orig. art. has: 6 formulas, 7 figures, and 3 tables. [15]

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SUBM DATE: 15Apr65/

ORIG REF: 012/

OTH REF: 004

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ACC NR: AP6007076

UR/0057/66/036/002/0280/0293

AUTHOR: Makarov, Yu.V.; Maksimov, A.M.

ORG: Power Engineering Institute im. G.M.Krzhizhanovskiy, Moscow (Energeticheskiy institut, Moskva)

TITLE: Investigation of the processes behind a reflected shock wave in an electromagnetic shock tube

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 2, 1966, 280-293

TOPIC TAGS: plasma shock wave, plasma temperature, plasma density, plasma conductivity, shock tube, shock wave reflection, reflected shock wave, air, argon, carbon dioxide

ABSTRACT: The reflection of shock waves normally incident on a solid wall was investigated in air, argon, and carbon dioxide at pressures up to 2 mm Hg, and at M_s numbers up to 34 for air and argon and up to 50 for carbon dioxide. The shock waves were produced in a 5.7-cm-diameter, 110-cm-long electromagnetic shock tube equipped with a conical discharge chamber and closed at the far end with a Plexiglas reflecting wall. The velocity of the waves was measured with the aid of two photomultipliers mounted 20 cm apart, one of which recorded the radiation from the region immediately adjacent to the reflecting wall. The pressure was measured with a 2-mm-diameter piezoelectric ceramic transducer mounted 5 mm from the reflector near the cylindrical wall of the tube. Time-resolved spectrograms were recorded of the radiation originating near the

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ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy energeticheskiy institut im.
G.M. Kravtshanskogo, Moscow (State Scientific Research Power Engineering Institute)

SUBMITTED: 0430184

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the shock wave were varied over rather wide ranges, a great many data appear to have been collected. Only a few of these data are presented directly, but many of them are discussed in some detail. Most of the visible radiation was found to originate in the gas discharge plasma behind the shock front. Under most conditions the gas discharge plasma followed the shock wave very closely and its luminosity made it impossible to investigate the state of the working gas immediately behind the shock front. Under some conditions, however, the shock wave outruns the gas discharge plasma, and an investigation of the state of the gas behind the shock front under these conditions is promised for the future. The electron concentration in the gas discharge plasma varied from 10^{15} to 10^{17} cm⁻³ and depended strongly on the initial conditions (air pressure and discharge voltage); the electron temperature was about 600 °K and was almost independent of the initial conditions. "In conclusion, we express our deep gratitude to A.S. Predvoditel'ev for his constant interest in the work and for a valuable discussion." (Fig. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 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AUTHOR: Khokhlov, Yu.Ye.; Malinov, A.M.

TITLE: Spectroscopic investigations with an electromagnetic shock tube

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 4, 1965, 658-666

TOPIC TAGS: electromagnetic shock tube, shock wave, spectroscopy, plasma, electron temperature

ABSTRACT: The authors have continued their earlier work (Sb. "Fizicheskaya plazma i vysokie gaso pri vysokikh temperaturakh", Izd. "Nauka", 1964; Sb. "Issledovaniya po fizicheskoj plazmologii", Izd. "Nauka", 1965) with an electromagnetic shock tube. In the present paper they report results of spectroscopic investigations with the earlier described shock tube, in which air was used as the working medium. With the aid of a monochromator, a photomultiplier, and an oscilloscope, the time variation of intensity as the shock wave passed the observation point was recorded for a number of spectrum lines of H, C, O, and other elements, and for a number of wavelengths in the continuum. As both the air pressure in the shock tube and the strength of the electrical discharge producing

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The various phenomena accompanying the shock wave were observed with
 a photomicrograph and the radiation in discrete spectral lines was observed
 with a photomicrograph coupled to a monochromator. The shock waves were produced by
 discharges in a cylindrical tube and were propagated in air at pressures up
 to several atm H_2 in a cylindrical tube. The previous conclusions were confirmed,
 and it is asserted that the interpretation by R. B. Dandekar and S. N. Bhatt (Plasma in
 a Magnetic Field, J. Stanford Univ. Press, 1968) of phenomena accompanying reflection
 of shock waves in terms of a relaxation zone must be regarded as erroneous.
 It was found that when $\text{H}_2 > 10$ the shock front leads the luminous front (gas
 discharge plasma) by less than 0.1 cm and when $\text{H}_2 < 10$ there
 is a large separation of shock-heated gas between the shock front and the
 luminous gas discharge plasma. The gas in charge plasma behind the weaker
 shock waves is unstable and appreciable mixing of it with the shock-heated gas oc-
 curs. The authors express their deep gratitude to A. B. Fridman for his con-
 stant interest in the work and valuable discussion of the results. Orig. art. has:
 2 figures, 4 tables and 3 tables.

[02]

1985, 880-887

shock tube, shock wave structure, shock heating, shock reflection, shock tube, supersonic shock tube, gas discharge plasma, carbon vapor transducer, piezoelectric transducer, electromagnetic

ABSTRACT. The authors have previously investigated shock waves in electromagnetic shock tubes (Zhukovskiy, 1965) and obtained evidence for the existence of a region of maximum luminosity (and not to recombination) in the shock front (due to a gas discharge plasma) and that for low intensity shock waves heated by the shock front) and that for low intensity shock waves the luminous shock front outruns the region of maximum luminosity. In this report further, more detailed experiments to test and extend the principal innovation in the present work was the use of a photoresistor transducer in order to register the passage of the

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Dependence of heat fluxes and temperatures
on the time, calculated for the pickup
from the experimental data

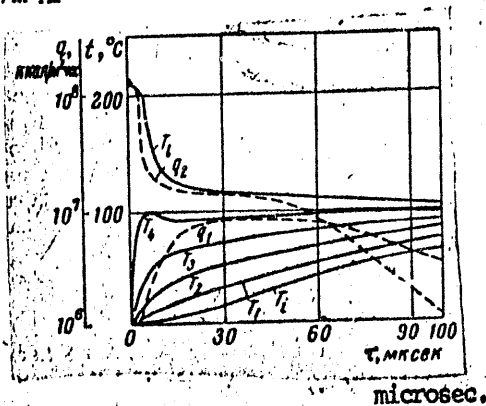
- T_e - temperature on external surface of insulation
- T_i - temperature on contact between insulation
and filament
- $T_{1, 2, 3, 4}$ - temperatures in different layers of
the insulation, in steps $\Delta r = 1 \mu$
- q_1 - heat flux to the filament
- q_2 - heat flux to external surface of pickup

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ENCLOSURE: 03

kcal/m²hr



Card 6/7

ACCESSION NR: AP4038431

ENCLOSURE: 02

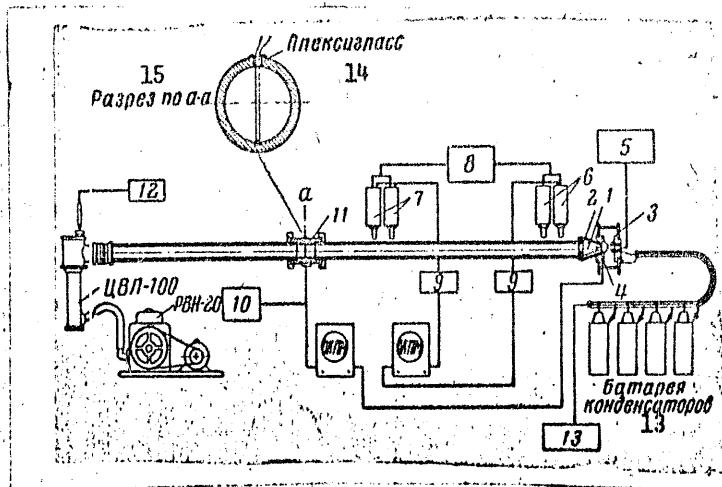
Block diagram of experimental setup

1 - discharge chamber, 2 - return lead, 3 - discharge gap, 4 - loop, 5 - initiating block, 6 - photocells measuring the front velocity, 7 - photomultipliers measuring the front velocity, 8 - photomultiplier supply block, 9 - linear mixer, 10 - resistance thermometer supply, 11 - section with resistance thermometer, 12 - vacuum meter, 13 - capacitor bank, 14 - Plexiglas, 15 - section a-a

Card 5/7

ACCESSION NR: AF4038431

ENCLOSURE: 01



Card 4/7

ACCESSION NR: AP4038431

tus. "The authors are grateful to A. S. Predvoditelev for interest in the work." Orig. art. has: 3 formulas and 3 figures.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo
(Power Institute)

SUBMITTED: 06Aug63

DATE ACQ: 09Jun64

ENCL: 04

SUB CODE: ME

NR REF SOV: 003

OTHER: 001

Card 3/7

ACCESSION NR: AP4038431

serve as a heat accumulator, and the possibility of using various structural shapes (linear, circular, bifilar, etc.). A heat-exchange experiment with these pickups is described, using apparatus previously reported (Zh. tekhn. fiz. v. 33, No. 6, 724, 1963). The plasma was produced by discharging a 600 μ F capacitor bank at 5 kV. The pickup was made of 15-micron wire covered with glass insulation 5 microns thick. The calibration of the thermometer is described. The results of the heat flux measurements with the aid of the cylindrical wire agreed with the assumption that the plasma is produced by a shock wave moving with velocity 9×10^5 cm/sec. The calculated parameters behind the shock were $T_2 = 8,000^\circ\text{K}$, $p_2 = 0.27$ atm. and $\zeta_2 = 0.6 \times 10^{-5}$ g/cm³. While the experiment described does not solve the heat exchange problem completely, yielding merely information on the parameters and structure of the flow in a magnetohydrodynamic tube, it is concluded that the method can be used to determine the energy losses of a plasma generated in pulsed appa-

Card 2/7

ACCESSION NR: AP4038431

S/0294/64/002/002/0170/0175

AUTHORS: Makarov, Yu. V.; Polyakov, Yu. A.

TITLE: Method of measuring heat fluxes in a plasma

SOURCE: Teplofizika vy*sokikh temperatur, v. 2, no. 2, 1964, 170-175

TOPIC TAGS: plasma heating, discharge plasma, shock wave propagation, heat exchange, thermal calorimetry

ABSTRACT: After listing the limitations of other methods, the authors demonstrate the feasibility of using a thin copper wire with glass insulation as a pickup, suitable for short-duration processes, for the measurement of heat flow from a plasma in the temperature range 3,000--20,000K. Among the advantages claimed for the pickup construction is the ease with which a wire-wound resistance can be manufactured (compared with a film resistance), the possibility of using thicker and stronger insulation, the lack of a substrate to

Card 1/7

SHAN'GIN, N.V.; MAKAROV, Yu.V.

Effect of the fissure state of a medium on the velocity and amplitude of a seismic wave (three-dimensional model). Uch. zap. IGU
no. 324:136-140 '64. (MIRA 18:4)

L 20821-65

ACCESSION NR: AT4048007

accurately to $\pm 24\%$ and the results being tabulated. Bright lines were obtained from the copper electrodes and the hydrogen Balmer series, and thus indicated the temperature and ion concentration of the plasma. Changes in the spectra when the discharge parameters were changed are then discussed. The ion concentration for various pressures and velocities was obtained from Stark-broadening. Subsidiary experiments showed a rapid growth in intensity (tenths of a μsec) and the presence of high-temperature zones behind the luminescent front. The temperature and ion concentration decreased at high pressures. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Energeticheskiy institut AN SSSR (Power Engineering Institute, AN SSSR)

SUBMITTED: 06 Mar 64

ENCL: 00

SUB CODE: ME

NO REF SOV: 002

OTHER: 003

Card 2/2

1.00821-01 BWP (1)/EPF/ENG(v)/EPA(w)-2/ENT(1)/PCS(k)/T-2/BPA(sp)-2/ENA(w)-2/
 EPAT(1)/EAL(1)/PD-1/PA-5/PI-4/PC-4/PAB-10/SSD/ESD/ESD(b)/AFWL/AEDC(b)/
 AEDC(a)/AED(c)-5/ASD(v)-3/AFETR/RAEM(c)/RAEM(a)/ESD(a)/ESD(1)/ASB(c)-3/IJP(c)/
 ACCESSION NR. AT4048007 MLK 8/0000/81/000/000/0055/0/58

AUTHOR: Makarov, Yu. V., Makimov, A. M.

TITLE: Spectroscopic studies of plasma in a magnetohydrodynamic shock tube. B41

SOURCE: AN SSSR, Energeticheskiy Institut, Fizicheskaya gazodinamika i svoystva
gazov pri vysokih temperaturakh (Physical gas dynamics and properties of gases at
 high temperatures), Moscow, Izd-vo Nauka, 1964, 55-58

TOPIC TAGS: plasma, gas dynamics, magnetohydrodynamics, plasma flow, shock tube,
 shock wave spectrum, plasma temperature, plasma ion concentration

ABSTRACT: This is a continuation of work by the authors using equipment described
 previously for the study of spectra from plasma behind the luminescent front of a shock
 wave. A 3-prism glass spectrometer was set up 90 cm from the ring electrode. The
 speed of the shock front was measured by an arrangement of photomultipliers which
 detected the front of the shock wave. The gas used was purified air at pressures of 0.3 -
 6 mm Hg. The typical spectrum illustrated for a speed of 14 km/sec. shows a continuous
 background, more intense at the red end and with some broad and narrow lines. The spectrum
 was analyzed by comparison with mercury and iron spectra, wavelengths being measured

Cont. 1/2

12209-65

ACCESSION NR: AT4048006

1300; oscillograms of the transmitted microwave signals were obtained. It was observed that the microwave signal was totally reflected for a long time following the passage of a front; the time of signal cutoff depends on the initial pressure. Measurements at various pressures (various velocities) showed that the time it takes for the signal to be totally reflected increases with increasing pressure (decreasing front velocity). The results obtained are fully discussed, and the good agreement with the results of other research work is pointed out. Orig. art. has: 10 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 062464

ENCL: 00

SUB CODE: HE, EM

NO REF SOV: 003

OTHER: 006

ATD PRESS: 3143

END 1/3

15209-05

ACCESSION NR. A24048005

system and various auxiliary equipment. A ring electrode was employed in the discharge chamber. The velocity of the wave front was measured by using pairs of photoelectric multipliers. The front velocity was found to be linear with the voltage on the condenser bank for gas pressures of 0.5 and 1.0 mm Hg. The front velocity was also measured as a function of capacitance. The decay of the front velocity along the tube was found to be linear for pressures of 0.5—1.0 mm Hg. For higher pressures and greater distances, the rate at which the decay decreases with distance becomes smaller. The decay is linear with distance for various voltages applied to the discharge chamber (i.e., for various initial velocities) and a pressure of 0.5 mm Hg. The motion of plasma in a transverse homogeneous magnetic field was investigated, and both the electrical signal developed in probes arranged perpendicularly to the magnetic field and the direction of the motion of plasma were measured. It was found in all experiments that the plasma velocity was smaller than, or equal to the velocity of the luminous front. The transmission of microwaves through plasma was also investigated in order to obtain qualitative data on the concentration of electrons at large distances from the ring elec-

Cont. 2/3

CLASSIFICATION: EMB(M)/EMB(T)/PCS(E)/TWA(L)/EAM(I) Pg. 1/Pg. 2/Pg. 3
 EMB(E)/EMB(A)/EMB(H)/EMB(S)/EMB(L)-2/ASD(P)-3/AFTH/RAEM(a)/RAEM(c)/ESD(gs)/ESD(t)
 REGISTRATION NO: 004048006 6/0000/54/000/000/0045/0054

AUTHOR: MAKAY, V. V.

TITLE: Some investigations of the processes taking place in a magneto-hydrodynamic shock tube having a tapered discharge chamber

SOURCE: AN SSSR, Energeticheskii institut, Fizicheskaya gazodina-
 mika i svyaz s gazov pri vysokikh temperaturakh (Physical gas
 dynamics and properties of gases at high temperatures). Moscow, Izd-
 vo Nauka, 1967, 12-14

TOPIC TAGS: gas discharge tube, shock tube, magnetohydrodynamic,
 shock wave, plasma flow, microwave transmission

ABSTRACT: The paper presents the initial results of broad investi-
 gations of the nature of the shock waves, the flow structure, and the
 plasma parameters which are noted during a pulse discharge in a cham-
 ber of a special geometry. The experimental setup consisted of a bank
 of condensers of 7.5 kJ maximum energy, a discharge chamber contain-
 ing a controlled spark gap, a tube in which the gas moves, a vacuum

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500036-6

MAKAROV, YU.V.; MAKSIMOV, A.M.; TRUKHIN, V.I.; CHEKALIN, E.K. (Moscow)

"The shock wave investigation in a magnetohydrodynamic shock tube".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

L 10395-63

ACCESSION NR: AP3001333

2

the distance from the blunt body. The shock retains an almost stable form during the first 6 microseconds and afterwards changes sharply. The process of shock-wave formation is very complicated and cannot be described by a simpler scheme. The presence of a static magnetic field changes the aspect of the process behind the circular electrode. The intensification of the static field in the center of the conical chamber, recorded by a magnetic probe, is due to the radial compression of the gas in the longitudinal magnetic field. The recording of the maximum value of the field coincides with the arrival of the glow front at that point. The fast attenuation of the field with an increase in distance from the circular electrode is due to the low gas conductivity. "In conclusion, we must express our gratitude to A. S. Fredvoditelev for proposing the topic and evaluating the results." Orig. art. has: 4 figures.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo, Moscow (Power Engineering Institute)

Card 2/2

L 10395-63

EPR/EPA(b)/EWT(1)/EWG(k)/BDS/T-2/ES(w)-2--AEDC/AFTC/ASD/ESD-3/
AFWL/SSD--Pg-l/Pd-l/Pz-l/Pi-l/Pab-l--WW/AT/IJP(G)

ACCESSION NR: AP300.333

S/0051/63/033/006/0724/0730

AUTHOR: Makarov, Yu. V.; Nartov, S. V.

TITLE: Some results of a magnetic field investigation in a hydromagnetic shock tube

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 6, 1963, 724-730

TOPIC TAGS: shock waves, T-type tubes, magnetohydrodynamic shock tubes

ABSTRACT: The formation of shock waves in a magnetohydrodynamic tube with a conical chamber has been investigated by using the apparatus shown in Fig. 1 of the Enclosure. Photographs of the process near the circular electrode with and without the presence of an external magnetic field were obtained. The capture of the external magnetic field during radial compression of plasma in the conical chamber and during axial motion from the chamber into the tube was preliminarily studied with the aid of magnetic probes and coils surrounding the tube. These results are summarized in Fig. 2. It is concluded that the duration of the detached shock is approximately half of the period of discharge, regardless of

Cord 1/82

Investigation of the effect ...

S/885/62/000/000/030/035
D234/D308

found that the measurements are most affected by electrical conductivity of the gas. There are 10 figures.

Card 2/2

S/885/62/000/000/030/035
D234/D308

AUTHORS: Makarov, Yu. V. and Polyakov, Yu. A.

TITLE: Investigation of the effect of thermal and electrical phenomena on the measurement of heat exchange in a shock tube

SOURCE: Akademiya nauk SSSR. Energeticheskiy institut. Fizicheskaya gazodinamika, teploobmen i termodinamika gazov vysokikh temperatur. Moscow, Izd-vo AN SSSR, 1962, 261-269

TEXT: The authors analyze the possible sources of error in the use of a film transducer at $p = 0.76$ mm Hg. Thermal sources of error (accumulation of heat energy in the film owing to heat exchange, decrease of temperature of the film during the experiment, heating of the film by the measuring current, thermal emission) are investigated theoretically. Experiments were carried out on: distortion of the signal due to shunting of the resistance of the film by a conducting medium, induction of a current in the film, adhesion of ions to the film, additional signals due to photoemission. It is

Card 1/2

S/120/60/000/02/045/052

E140/E335

AUTHORS: Makarov, Yu.V. and Meleshin, N.M.

TITLE: Light Pulse Generator for Photomultiplier Testing

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No 2,
pp 154 - 155 (USSR)

ABSTRACT: An instrument is described employing a neon lamp and a
thyatron for generating short light pulses at repetition
rates of 50 - 250 cps. The scatter is about 0.15%.
Dispersion is absent.
There are 4 figures and 2 references, 1 of which is
English and 1 Soviet.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of
Chemical Physics of the Ac.Sc., USSR)

SUBMITTED: March 31, 1959

Card 1/1

SOV/56-36-4-13/70

Isomers With Millisecond Periods Formed in Reactions With Neutrons With
Energies of 14 Mev

bashov, Yu. Ya. Lapitskiy, A. V. Gusev, V. S. Ionov, and
D. F. Veprintsev for their collaboration. There are 12 figures,
1 table, and 21 references, 10 of which are Soviet.

SUBMITTED: October 21, 1958

Card 4/4

SOV/56-36-4-13/70

Isomers With Millisecond Periods Formed in Reactions With Neutrons With Energies of 14 Mev

| Sample | γ -energy [Mev] | half-life [msec] | cross section [10^{-24} cm^2] | suggested reaction |
|--------|--|--|---|--|
| Ge | 0.17 ± 0.01 | 16 ± 1 | 0.3 | - |
| As | 0.28 ± 0.01 | 17 ± 1 | 0.13 | $\text{As}^{75}(n, n')\text{As}^{75m}$ |
| Y | 0.24 ± 0.01 | 14 ± 1 | - | $\text{Y}^{89}(n, n')\text{Y}^{89m}$ or $\text{Y}^{89}(n, 2n)\text{Y}^{88m}$ |
| In | 0.32 ± 0.01 | 42 ± 2 | 0.8 | $\text{In}^{115}(n, 2n)\text{In}^{114m}$ |
| Pb | 0.48 ± 0.01 ; 0.94 ± 0.02 ; 0.58 ± 0.01 ; 1.04 ± 0.03 | 5 ± 0.5 $8.10^2 \pm 1.5 \cdot 10^2$ | - 1.5 | $\text{Pb}^{206}(n, 2n)\text{Pb}^{205m}$ $\text{Pb}^{208}(n, 2n)\text{Pb}^{207m}$ $\text{Pb}^{207}(n, n')\text{Pb}^{207m}$ |
| Bi | 0.48 ± 0.01 ; 0.86 ± 0.02 | 2.7 ± 0.3 | 0.6 | $\text{Bi}^{209}(n, 2n)\text{Bi}^{208m}$ |

Card 3/4

The authors finally thank O. I. Leypunskiy for his great help, and O. B. Likin, N. M. Meleshin, N. K. Parshenkov, V. A. Sha-

SOV/56-36-4-13/70

Isomers With Millisecond Periods Formed in Reactions With Neutrons With Energies of 14 Mev

in an accelerator of 500 kv (cf Ref 6). Irradiation was in pulses at the rate of ~ 1 pulse per second. The square pulses received on the target had a duration of 1.3 msec and amplitudes of up to 2 ma; $2 \cdot 10^7$ neutrons/pulse were emitted. The neutron monitor worked with a photomultiplier FEU-19M with scintillator which was sensitized for neutrons (ZnS in plexiglass), and with the PS-10000 device "Fleks". For measuring γ -radiation a NaJ(Tl)-crystal in a standard duraluminum container with the photomultiplier FEU-5 was used. The devices and methods for the determination of the half-lives of isomers and for estimation of the formation cross section for isomers are discussed in detail. Figure 1 shows a block scheme of the entire device, figures 3, 6, 7, 11, 12 show spectra recordings. Measuring results are discussed individually for each element. The most important are contained in the following table:

| Sample | γ -energy [Mev] | half-life [msec] | cross section [10^{-24} cm ²] | suggested reaction |
|--------|------------------------|------------------|--|--|
| Mg | 0.47 ± 0.01 | 20 ± 1 | 0.08 | $\text{Mg}^{24}(\text{n}, \text{p})\text{Na}^{24\text{m}}$ |
| Al | 0.47 ± 0.01 | 20 ± 1 | 0.04 | $\text{Al}^{27}(\text{n}, \alpha)\text{Na}^{24\text{m}}$ |

Card 2/4

21(7)

AUTHORS:

Glagolev, V. L., Kovrizhnykh, O. M., Makarov, Yu. V.,
Yampol'skiy, P. A. SOV/56-36-4-13/70

TITLE:

Isomers With Millisecond Periods Formed in Reactions With Neutrons With Energies of 14 Mev (Izomery s millisekundnymi periodami, voznikayushchiye pri reaktsiyakh s neytronami s energiyey 14 MeV)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 4, pp 1046-1057 (USSR)

ABSTRACT:

In the present paper the authors report on an investigation of the short-lived (10^{-3} - 10^{-1} sec) γ -radiation occurring in reactions with the participation of 14 Mev neutrons. Investigations were carried out of Li, C, Na, Mg, Al, S, Ga, Se, Ti, V, Mn, Co, Ni, Zn, Ga, Ge, As, Se, Br, Rb, Cu, Fe, Sr, Y, Zr, Nb, Mo, Pd, Cd, In, Sn, Te, La, Ce, Ta, W, Au, Hg, Tl, Pb, Bi, Th, and U. In Mg, Al, Ge, As, Y, In, Pb, and Bi γ -activities of such small half-lives were found. The apparatus and the measuring method are first described in detail. The neutrons used originated from the reaction $T(d,n)He^4$ and were accelerated

Card 1/4

PA - 2705

New Short-Lived Isomeres within the Millisecond Domain.

one another. The data found here are compared with those found by other authors shortly after the here discussed measurements had been carried out. (1 Table).

ASSOCIATION: Chemical-Physical Institute of the Academy of Science of the U.S.S.R.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 2/2

MAKAROV, YU. V.

AUTHOR: LEYPUNSKIY, O. I., MOROZOV, A. M., MAKAROV, YU. V. PA - 2705
YAMPOL'SKIY, P. A.
TITLE: New Short-Lived Isomeres within the Millisecond Domain.
(Novyye korotkoperiodnyye izomery v millisekundnoy oblasti, Russian)
PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 32, Nr 2,
pp 393-394 (U.S.S.R.)
Received: 5 / 1957 Reviewed: 7 / 1957

ABSTRACT: The authors investigated such isomeric states as occur on the occasion of reactions with 20 MeV protons. Data on new isomeric activities of some elements were determined recently. The method used for the investigation of these short-lived activities were described in a previous work (O. I. LEYPUNSKIY et al., Doklady Akademii Nauk, 1956, Vol 109, Nr 935). In the case of the measurements described here the energy of γ -radiation was determined by means of a photomultiplier FEU-19 with NaJ(Tl) crystals and a one-channelled differential discriminator. Also the control tests are mentioned.
A table contains the half-value periods found here and the values of the energy of γ -radiation of the newly discovered activities. The half-value periods found on the occasion of control tests with different compounds of the same element agree well among

Card 1/2

MAKAROV, Yu.S.

Shipping and the interregional economic relations of Indonesia.
Vop. geog. no.64:80-93 '64. (MIRA 17:10)

I. Moskovskiy gosudarstvennyy universitet, geograficheskiy
fakul'tet.

MAKAROV, Yu.S.

Seaports of Indonesia. Vest. Mosk. un. Ser. 5:Geog. 18
no.5:26-31 S-O '63. (MIRA 16:11)

1. Kafedra ekonomicheskoy geografii kapitalisticheskikh
i slaborazvitykh stran Moskovskogo universiteta.

KREMEN', K.S.; LIPETS, Yu.G.; MAKAROV, Yu.S.; MEDVEDKOV, Yu.V.;
OLEYNIKOV, I.N.; CHIZHOV, N.N.; ZABIROV, B.Sh., red.;
KOSTINSKIY, D.N., red.; ZHURAVLEVA, G.P., mladshiy red.;
GOLITSYN, A.V., red. kart; BURLAKA, N.P., tekhn. red.

[Countries of Central and South Africa; geographical information] Strany Tsentral'noi i Iuzhnoi Afriki; geograficheskie spravki. Moskva, Geografiz, 1962. 61 p. (MIRA 15:7)
(Africa, Central--Geography, Economic)
(Africa, South--Geography, Economic)

KREMEN', K.S.; LIPETS, Yu.G.; MAKAROV, Yu.S.; MEDVEDKOV, Yu.V.;
OLEYNIKOV, I.N.; CHIZHOV, N.N.; VORONINA, L.M., red.;
ZABIROV, B.Sh., red.; NASHAYEVA, E.A., tekhn. red.

[Equatorial and Southern Africa; 1:5 000 000] Ekvatorial'naia
i Iuzhnaia Afrika; 1:5 000 000. Moskva, Gos.izd-vo geogr.lit-ry
1961. 1 fold. map. ____ Text. 56 p. (MIRA 15:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i
kartografii.
(Africa--Economic geography--Maps)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500036-6

MAKAROV, Yuriy Semenovich; CHIZHOV, N.N., red.; NOGINA, N.I., tekhn.red.

[Mozambique] Mozambik. Moskva, Gos.izd-vo geogr.lit-ry, 1959.
45 p. (MIRA 12:12)

(Mozambique)

23288

S/187/61/000/007/003/003
D053/D113

A new differential aperture-correction network

$\omega_c = 6$ Mc, and the maximum positive value of a . An aperture corrector (Fig.2) designed according to this network is installed in the vidicon movie-picture unit of the Moscow TV station. There are 2 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The English-language publication reads: R.C. Dennison, Aperture compensation for television cameras, RCA Review, 1953, No. 12.

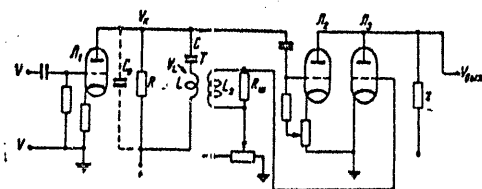


Fig. 1

New differential aperture correction network

$V_1 = T_1$

$V_2 = T_2$

$V_3 = T_3$

$V_k = V_c$

$V_{out} = V_{out}$

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S/187/61/000/007/003/003
D053/D113

A new differential aperture-correction network
and the phase shift (φ) is

$$\varphi = \arctg \frac{\omega LC}{\sqrt{3}} : \frac{4 - \omega^2 LC}{1 - \omega^2 LC}$$

At the cut-off frequency $\omega_c = \frac{1}{\sqrt{LC}}$, the steep slope of the frequency response curve amounts to 9% and there is a 5% deviation of the phase characteristic from the linearity law. Thus, in the frequency range from 0 to $\omega_c = \frac{1}{\sqrt{LC}}$, the network has a practically ideal aperture correction (α) given by the formula:

$$\alpha = 1 + a \delta^2$$

where δ is the relative frequency equal to $\frac{\omega}{\omega_c}$; and (a) is a correction factor equal to $n \frac{S_3}{S_2} - 1$. A maximum aperture correction of approximately 20 can be obtained with this network when using tubes with $S \approx 10 \frac{ma}{V}$,

Card 3/5

23288

S/187/61/000/007/003/003
D053/D113

A new differential aperture-correction network

where V is the input voltage; S_1 is the mutual conductance of the tube T_1 .
Self-inductance voltage (V_L) is

$$V_L = -\frac{V_c \omega^2 LC}{1 - \omega^2 LC} = -VS_1 R \omega^2 LCM(\omega)$$

The output voltage (V_{out}) is obtained by adding V_c and V_L across a common plate resistor (r) of the T_2 and T_3 tubes. The value of the output voltage is given as

$$V_{out} = VS_1 RS_2 r \left[1 + \omega^2 LC \left(n \frac{S_3}{S_2} - 1 \right) \right] M(\omega);$$

where S_2 and S_3 are the mutual conductances of the T_2 and T_3 tubes, respectively; n is the transformation ratio of the transformer T ; and $M(\omega)$ is the coefficient of frequency distortions. When $C = 3C_0$ and $R = \sqrt{\frac{9}{8} \frac{L}{C}}$, then the circuit parameters conform to the optimum conditions of the frequency characteristic. In this case, the modulus of the frequency distribution factor is

$$|M(\omega)| = \frac{1}{\sqrt{1 + \frac{1}{8} \omega^6 L^3 C^3}}$$

Card 2/5

23288
S/187/61/000/007/003/003
D053/D113

9,4140
6.6000

AUTHORS: Braude, G.V., and Makarov, Yu.S.

TITLE: A new differential aperture-correction network

PERIODICAL: Tekhnika kino i televideniya, no. 7, 1961, 40-42

TEXT: A new version of the differential aperture-correction network is described. The network (Fig. 1) includes a circuit, connected to the plate of a tube T_1 , consisting of three parallel branches: an interstage spurious capacitance C , a plate resistance R , and a series LC-link. The impedance (Z) of this circuit is

$$Z = R(1 - \omega^2 LC) \cdot M(\omega) ;$$

where

$$M(\omega) = \frac{1}{1 - \omega^2 LC + j\omega R(C + C_0 - \omega^2 LCC_0)} .$$

The voltage (V_c) across the impedance (Z) is

$$V_c = VS_1 Z ;$$

Card 1/5

IGNAT'YEV, A.D., kand. tekhn. nauk; SVIRIDENKO, A.F., inzh.; ~~MAKAROV, Yu.F.~~,
inzh.

Investigating the operating conditions of the BLS-1 boring machine
and the directional boring of long blast holes. Izv. vyzn. uch. i
zav.; gor. zhur. 7 no.10:86-91 '64. (M.A. 1011)

1. Institut gornogo dela imeni A.A. Skochinskogo (for Ignat'yev,
Sviridenko). 2. Pechorskiy nauchno-issledovatel'skiy spetsialnyy
institut (for Makarov). Rekomendovana institutom gornogo dela
imeni A.A. Skochinskogo.

The boiling-water reactor - a ... S/196/62/000/016/009/011
E194/E155

mixture formed in the reactor is delivered to a primary-steam separator. The saturated steam there separated is delivered to a turbine and the water is pumped back to the reactor through the secondary-steam evaporator. Secondary steam from the evaporator is delivered to the secondary-steam separator and thence to the intermediate stage of the turbine. Problems of stable operation and power control of such a reactor are considered and also the purity of steam and the radioactive contamination of the circuit. For pressures above 70 atm the output of a boiling-water reactor is limited because filmwise boiling occurs at certain critical loadings and is accompanied by considerable impairment of heat transfer. One way of making boiling-water reactor equipment more economic is to superheat the steam either in the reactor itself (nuclear superheat) or in a special fired superheater. Nuclear superheat is the more promising.

[Abstractor's note: Complete translation.]

Card 2/2

S/196/62/000/016/009/011
E194/E155

AUTHORS: Doroshchuk, V.Ye., and Makarov, Yu.N.

TITLE: The boiling-water reactor - a promising set for
nuclear power

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,
no.16, 1962, 3⁴, abstract 16 G 238. (Elektr. stantsii,
no.4, 1962, 11-14).

TEXT: The disadvantages of nuclear power installations with
water-cooled water-moderated reactors are pointed out. To obtain
saturated steam at a pressure of 30 atm in the steam generator it
is necessary to maintain 100 atm in the reactor, which greatly
complicates the installation. The disparate water pressures in
the first and second circuits reduce the thermal efficiency of the
heat-power cycle. Moreover, a large quantity of heat-transfer
medium is pumped through the reactor; at one nuclear power station
the amount is 27 000 cubic metres/hour. The boiling-water reactor
is free of these defects. However, a large volume of steam in the
reactor would cause unstable operation. This may be avoided if the
equipment produces steam at two pressures. Here, the steam-water
Card 1/2

GUBIN, V.V.; MAKAROV, Yu.N.; AKSENOV, B.Ye.

Mine testing of coal extraction by means of chain saws. Ugol' 35
no.11:27-30 N '60. (MIRA 13:12)

1. Pechorskiy nauchno-issledovatel'skiy ugol'nyy institut (for Gubin, Makarov).
 2. Glavnyy inzhener shakhty No.1-2 "Khal'mer-Yu" (for Aksenov).
- (Coal mines and mining) (Coal mining machinery)

MAKAROV, Yu.M.; KHARITONOVA, G.N.; CHUDAKOVA, N.I.

Changes in the properties of capron fibers during the process of manufacture. Khim. volok. no.3:62-65 '65. (MIRA 18:7)

1. Moskovskiy tekstil'nyy institut (for Makarov). 2. Klinskiy kombinat iskusstvennogo i sinteticheskogo volokna (for Kharitonova, Chudakova).

MAZOV, Yu.A.; MAKAROV, Yu.M.

Technological and design characteristics of a bobbin holder for
warping from cakes. Khim.volok. no.2:54-56 '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna.

(Spinning machinery)

PHASE I BOOK EXPLOITATION

SOV/6428

Bogolyubskiy, G. N., I. I. Burlinov, L. V. Vinogradov, V. V. Voznesenskiy,
V. S. Daniluk, A. S. Zubkin, A. S. Il'yashev, M. D. Korablev, Yu. A.
Lebedeva, Yu. K. Makarov, I. P. Miroshnikov, I. P. Novichenko, A. V.
Popov, and V. A. Serebryakov

Zashchita naseleniya ot sovremennykh sredstv porazheniya; uchebnoye
posobiye dlya organizatsii DOSAAF (Protection of the Population From
Modern Means of Destruction; Handbook for DOSAAF Organizations)
2d ed., rev. and enl. Moscow, DOSAAF, 1963. 254 p. 450,000 copies
printed.

Sponsoring Agency: Vsesoyuznoye ordena krasnogo znameni Dobrovol'noye
obshchestvo sodeystviya armii, aviatsii i floty.

Eds. (Title page): I. S. Varennikov and L. V. Vinogradov; Compilers: M. D.
Korablev and Yu. A. Lebedeva; Ed.: F. Ye. Godiner; Tech. Ed.: M. Z.
Sorkin.

Card 1/β

BOGOLYUBSKIY, G.N.; BURLINOV, I.I.; VINOGRADOV, L.V.; VOZNESENSKIY,
V.V.; DANILYUK, V.S.; ZUBKIN, A.S.; IL'YASHEV, A.S.; KORABLEV,
M.D.; LEBEDEVA, Yu.A.; ~~MAKAROV, Yu.K.~~; MIROSHNIKOV, I.P.;
NOVICHENKO, I.P.; POPOV, A.V.; SEREBRAKOV, V.A.; VARENNIKOV,
I.S., red.; GODINER, F.Ye., red.; SORKIN, M.Z., tekhn. red.

[Protecting the population from present-day means of
destruction] Zashchita naseleniia ot sovremennykh sredstv po-
razheniia; uchebnoe posobie dlia organizatsii DOSAAF. Pod ob-
shchei red. I.S.Varennikova i L.V.Vinogradova. Izd.2., perer.
i dop. Moskva, Izd-vo DOSAAF, 1962. 254 p. (MIRA 16:4)
(Civil defense)

BABKIN, I.A.; BOGOLYUBSKIY, G.N.; BURLINOV, I.I.; VOZNESENSKIY, V.V.;
DANILYUK, V.S.; ZAPOL'SKIY, G.N.; ZUBKIN, A.S.; IL'YASHEV, A.S.;
KIPRIYAN, K.M.; KONDRAT'YEV, P.V.; KORABLEV, M.D.; LEBEDEVA,
Yu.A.; MAKAROV, Yu.K.; MIROSHNIKOV, I.P.; NOVICHENKO, I.P.;
POPOV, A.V.; SEREBRYAKOV, V.A.; KANEVSKAYA, M.D., red.; ANDRIANOV,
B.I., tekhn.red.

[Protecting the public from present-day means of destruction;
a textbook for organizations of the All-Union Voluntary Society for
the Promotion of the Army, Aviation, and Navy] Zashchita naseleniya
ot sovremennykh sredstv porazheniya; uchebnoe posobie dlia organi-
zatsii Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii,
aviatsii i flotu. Moskva, Izd-vo DOSAAF, 1958. 334 p. (MIRA 12/4)
(Civil defense)

LASTOVTSEV, A.M., dr. tekhn. nauk, prof.; KHAL'NOV, A.M., kand. tekhn.
nauk; MAKAROV, Yu.I., kand. tekhn. nauk

Blenders for free flowing materials. Khim. mashinostr. no.1:
7-9 Ja'63 (MIRA 17:7)

MAKAROV, Yu.I.

Studying the performance of a mechanical absorber for removing hydrogen
from carbon dioxide and hydrogen sulfide. Gaz.prom. 6 no.7:28-31 '61.
(MIRA 17:2)

AKOPYAN, L.A.; VARYGIN, N.N.; GUTAREV, V.V.; ZYKOV, D.D.; KARAVAYEV, N.M.;
KONDUKOV, N.B.; LASTOVTSEV, A.M.; MAKAROV, Yu.I.; MAZUROV, D.Ya.;
MARTYUSHIN, I.G.; MASLOVSKIY, M.F.; NIKOLAYEV, P.I.; PLANOVSKIY,
A.N.; RYCHKOV, A.I. [deceased]; CHEKHOV, O.S.; KHVAL'NOV, A.M.;
SHAKHOVA, N.A.

Theory and practice of heterogeneous processes in a fluidized
bed. Trudy MIKHM 26:3-22 '64. (MIRA 18:5)

LASTOVTSEV, A.M.; KHAL'NOV, A.M.; MAKAROV, Yu.I.

Process of mixing of free-flowing materials in a fluidized
bed obtained by the mechanical method. Khim.prom. no.11:815-818
N '62. (MIRA 16:2)

(Fluidization)

Theory of the resistance and heat ... S/196/62/000/010/017/035
E073/E155

theory of heat exchange for the case of jet flows past bodies
is proposed.
2 references.

[Abstractor's note: Complete translation.]

✓B

Card 2/2

S/196/62/000/010/017/035
E073/E155

103400

AUTHORS: Kudryashev, L.I., and Makarov, Yu.I.

TITLE: Theory of the resistance and heat transfer in jet flows past bodies

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.10, 1962, 2-3, abstract 10 G12. (Tr. Kuybyshevsk. aviats. in-t, no.12, 1961, 93-98)

TEXT: The principal difference in the physical picture of the flow past bodies by an unlimited flow and by a flow with finite dimensions was established. Differential equations analysed by similarity theory methods yield a new determining parameter x/θ which is of considerable importance in experimental determination of the resistance and heat-transfer coefficients in jet flow past bodies. The theory of the "regular thermal regime" serves to establish an unequivocal relation between the Nusselt criterion characterizing the external heat transfer and the new invariant K , which determines the internal process of heat conductivity. A simple method of applying the hydrodynamic

Card 1/2

✓B

MAKAROV, Yu. I.

Cand Tech Sci - (diss) "Study of the spraying of liquid in mechanical absorbers with rotating submerged cones." Moscow, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Chemical Technology Institute D. I. Mendeleev); 150 copies; price not given; (KL, 7-61 sup, 240)

ACC NR: AP6010527

precision, 0.2 mm; method of clamping master and work, pneumatic; motor output for lengthwise carriage, 0.6 kW; dimensions, 3950 x 1150 x 1060 mm; and weight, 2300 kg. Orig. art. has: 2 figures.

SUB CODE: 13/ SUBM DATE: none

Card 2/2

ACC NR: AP6010527

(A)

SOURCE CODE: UR/0193/65/000/010/0025/0027

AUTHOR: Makarov, Yu. A.

ORG: none

TITLE: Experience in the use of a duplicate milling machine for the machining of curvilinear and rectilinear work

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 10, 1965, 25-27

TOPIC TAGS: machine tool, milling machine, duplicate milling, metal machining

ABSTRACT: The article describes a duplicate milling machine, developed at an unspecified Soviet enterprise, which, unlike conventional mills, can be used for profile and slot milling with both rectilinear and curvilinear L- and T-shaped rolled and pressed sections. The machine has mechanical drive (lengthwise) and manual (transverse) feed, permits the use of a standard piece as master form, and reduced to a minimum re-rigging time for other sizes and formats. The operational principle of the profiling machine is explained. Technical specifications of this machine, which resulted in an annual saving of 5,000 rubles and in better-quality production are given: maximum length of work, 3000 mm; minimum curvature of work, 300 mm; maximum thickness (contour-to-contour) of work, 8 mm; bed size (length and width), 3700 and 900 mm; milling head rpm rate, 18000; milling head motor output, 2 kW; maximum diameter of miller, 8 mm; cross carriage automatic feed rates, 750, 900, and 1100 mm/min; master-to-blank milling

Card 1/2

UDC: 621.914.37:621.81

L 01803-67 ENT(m)/ENP(j)/T IJP(c) WW/RM

ACC NR: AP6030605 (AN) SOURCE CODE: UR/0413/66/000/016/0093/0093 40B

INVENTOR: Yeliseyeva, V. I.; Avetisyan, I. S.; Drezel's, S. S.; Zubov, P. I.; Popov, V. A.; Makarov, Yu. A.; Izmaylova, I. S.; Orlova, K. G.; Gerasimova, A. S.; Gordonov, M. D.; Il'chenko, G. I.; Shreyner, S. A.

ORG: none

TITLE: Method of obtaining alkyl acrylate copolymers. Class 39, No. 185057 16

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966; 93

TOPIC TAGS: copolymer, copolymerization, monomer, alkyl acrylate

ABSTRACT: An Author Certificate has been issued for a method of obtaining alkyl acrylate copolymers with a vinyl acetate by emulsion copolymerization of the proper monomers in the water phase in the presence of an anion emulsifier. To obtain stable dispersions, 1-5 mol % unsaturated carboxylic acid, such as methacrylic acid, is introduced into the initial monomer mixture. [Translation] [NT]

SUB CODE: 07/ SUBM DATE: 16Jan65/

Card 1/1

UDC: 678.744.32-139

MAKAROV, Yu.A.

Introducing a copying milling machine for machining curvilinear
and rectilinear parts. Biul. tekhn.-ekon. inform. Gos. nauch.-issl.
inst. nauch. i tekhn. inform. 18 no.10:25-27 0 '65.
(MIRA 18:12)

L 5290-66 EWT(m)/EPI(c)/EWP(j) RPL WW/RM

ACC NR: AP5022052

SOURCE CODE: UR/0286/65/000/014/0129/0129

AUTHORS: Guseva, I. A.; Mal'kov, N. S.; Makarov, Yu. A.; Kuliev, E. A.; Izmaylova, I. S.; Shvareva, G. N.; Khantsis, R. Z.; Gladyshev, A. I.; Perepelkin, V. P.; Nikitina, D. M.; Chokunin, K. I.; Rodzinskiy, V. V.

ORG: none

TITLE: Method for obtaining copolymers. Class 39, No. 144021

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 129

TOPIC TAGS: copolymer, pressure casting

ABSTRACT: This Author Certificate presents a method for obtaining copolymers on the basis of methyl methacrylate and esters of acrylic acid by a suspension method. To obtain colorless copolymers suitable for fabricating products by casting under pressure, higher alcohols, e.g., octyl, as a plasticizer, esters of phthalic acid, e.g., dicyclohexyl, as a stabilizer, and derivatives of aminocumarone, e.g., phenyl ester of (naphtho-1", 2":4', 5')-triazoline (2')-stilbene-2-sulfoacid, as a clarifier are added to the mixture.

SUB CODE: MT, GC/ SUBM DATE: 15May61/ ORIG REF: 000/ OTH REF: 000

Card 1/1

09010501

ACCESSION NR: AR4032149

driven by P16A transistors. The schematic diagram of the registration block is given along with the driving circuit of the electro-mechanical counters. The transistors of the analyzer are fed from special transistorized voltage stabilizers. A gating circuit has been developed to block the stabilizers in the case of overload and to disconnect the stabilizer when the load current $J_L < J_{s.c.}$. The

ADA-150 analyzer can be used for simultaneous measurement of two amplitude spectra of pulses fed to the common analyzer input. In this case one spectrum is registered in channels 1--70 and the other in channels 80--149. Yu. Semenov.

DATE ACQ: 31Mar54

SUB CODE: GE, SD

ENCL: 00

Card 2/2

ACCESSION NR: AR4032149

S/0058/64/000/002/A015/A015

SOURCE: Ref. zh. Fiz., Abs. 2A169

AUTHOR: Makarov, Yu. A.

TITLE: Use of transistors in the registration block of an ADA-150 analyzer

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radio-elektronike. T. 2. Ch. 1. M., Gosatomizdat, 1963, 195-201

TOPIC TAGS: pulse height analyzer, differential pulse height analyzer, ADA 150 analyzer, analyzer registration block, transistorized registration block, overload gating circuit, stabilized power supply

TRANSLATION: Many circuit elements of the ADA-150 differential pulse-height analyzer have been transistorized. The registration block of the analyzer includes 150 electromechanical MES-54 counters

Card 1/2

MAKAROV, Yu.A.

Changes in the respiratory component of the conditioned food reaction
during the interaction of defensive and food dominants in dogs.
Zhur.vys.nerv. deiat. 11 no.2:273-280 Mr-Apr '61. (MIRA 14:6)

1. Chair of Normal Physiology, Sechenov Medical Institute, Moscow.
(CONDITIONED RESPONSE) (RESPIRATION)

A highly-sensitive scintillation...

S/058/63/000/003/006/104
A160/A101

a detector thickness of 3 mm and at a T-1 concentration of 600 mg/cm³. The maximum efficiency was ~10%. Hereby, the detector was composed of a mixture containing 31.9 g of the T-1 luminous compound, 42 g of polymethylmethacrylate powder, and 30 g of methylmethacrylate monomer. Since the duration of the pulses caused by the γ -rays equalled 1 μ sec, and the length of the pulses caused by the neutrons equalled 2 - 3 μ sec, it proved to be possible to somewhat increase the sensitivity of the detector to the thermal neutrons by using the delayed-self-coincidence circuit.

K. Aglintsev

[Abstracter's note: Complete translation]

Card 2/2

S/058/63/000/003/006/104
A160/A101

AUTHORS: Makarov, Yu. A., Matveyev, V. V., Popkov, G. K., Prikhodchenko, N.N.,
Stremn, V. I.

TITLE: A highly-sensitive scintillation thermal-neutron counter capable
of operating in powerful gamma fields

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 39, abstract 3A313
("Sb. rabot po nekotorym vopr. dozimetrii i radiometrii ionizir.
izlucheniya. No. 2. M., Gosatomizdat, 1961, 103 - 116)

TEXT: The main factors determining the dependence of the efficiency of
scintillation thermal-neutron detectors on their parameters are analyzed. In-
vestigated were detectors into which T-1 luminous compound (an alloy of boric
anhydride with ZnS(Ag)) grains with an average diameter of 1 mm were intro-
duced by pressing into the mixture polymethylmethacrylate powder and methyl-
methacrylate monomer. The thickness of the detector was 3, 5, 7 and 10 mm. The
concentration of the T-1 grains changed from 100 to 1,000 mg/cm³. The γ -back-
ground of an order of 5 roentgen/hours was discriminated to a level of 0.1 - 1
pulse/sec. The maximum efficiency of recording thermal neutrons was obtained at

Card 1/2

MAKAROV, Yu.A.

Changes of the secretory and respiratory components of conditioned reflexes during the interaction of the defense and food dominations. Zhur. vys. nerv. deiat. 10 no. 4:590-598 J1-Ag '60.

(MIRA 14:2)

1. Chair of Normal Physiology, Sechenov Medical Institute, Moscow.
(CONDITIONED RESPONSE) (RESPIRATION)

MAKAROV, Yu A., Cand Med Sci -- (ukr) "The physiological mechanisms for the interaction of biologically positive and negative reaction conditions," Moscow, 1960, 22 pp (First Moscow Medical Institute in I. M. Sechenov) (KL, 36-60, 118)

MAKAROV, Yu. (Moscow)

Simple voltage indicator for a television set. Radio no. 12:40 D 194.
(Television--Receivers and reception) (MIRA 8:1)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031500036-6

MAKAROV, Yu. (Moscow)

~~MAKAROV, Yu. (Moscow)~~

Photographing the television screen. Radio no. 4:54 Ap '54. (MLRA 7:4)
(Television) (Photography)

MAKAROV, Yu.

PA 1/50T36

USSR/Engineering - Motors, Electric Sep 49
Motors, Synchronous

"The Quality of the SM-46 Turntable Motor,"
Yu. Makarov, 1 p

"Radio" No 9

The SM-46 synchronous motor, produced by a Leningrad factory, causes speaker hum, which is especially noticeable at high volumes. This is due to careless assembly of the stator and rotor. The rotor vibrates axially and radially. The change in the air gap between stator and rotor causes the hum. Requests the factory to eliminate this defect.

1/50T36

KOVARSKIY, L.G., inzh.; MAKAROV, Ye.Ya., teknik

Improved metal scaffolding for boilers. Energetik 9 no.8:8-12
Ag '61. (Boilers) (Scaffolding) (MIRA 14:8)

MAKAROV, Ye.V.

Construction of two-story stone buildings on a peat bog. Can., fund.
1 mekh. grun. 7 no.4:25-25 '65.
(MIRA 18:8)